

Notice of Allowability

Application No.

10/696,213

Examiner

Mike Rahmjoo

Applicant(s)

HUBER, ERIC

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/29/03.
2. ☒ The allowed claim(s) is/are 11-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 1/15/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Pinchak on 02/26/2007.

The application has been amended as follows:

Please cancel claims 1- 10.

Allowable Subject Matter

Claims 11- 18 are allowed.

The following is an examiner's statement of reasons for allowance:

None of the prior art, either singularly or in combination, fairly teaches or suggests applicant's claimed invention wherein applicant recites as follows:

As per claim 11:

approximating the target object's pose by computing a match score between the target object silhouette and the binary shape and mask templates and wherein poses represented by binary templates yielding relatively high scores are selected as the approximate target object pose.

As per claim 15:

a pose selector for approximating the target object's pose by computing a match score between the target object silhouette and the binary shape and mask templates and wherein poses represented by binary templates yielding relatively high scores are selected as the approximate target object pose.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5214718 teaches a video image is extracted and stored as a geometric figure by generating a binary pixel map of the image. The binary pixel map contains one bit for each pixel in the image, representative of the value of a characteristic feature of that pixel relative to a threshold range. A crack following algorithm locates the border of a group of contiguous pixels all having the same binary value. This border defines the boundaries of the scanned image. It is smoothed by a recursive adaption technique to generate one or more polygons related to the shape of the image.

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US Patent 7003134 teaches Dense range data obtained at real-time rates is employed to estimate the pose of an articulated figure. In one approach, the range data is used in combination with a model of connected patches. Each patch is the planar convex hull of two circles, and a recursive procedure is carried out to determine an estimate of pose which most closely correlates to the range data. In another aspect of the invention, the dense range data is used in conjunction with image intensity information to improve pose tracking performance. The range information is used to determine the shape of an object, rather than assume a generic model or estimate structure from motion. In this aspect of the invention, a depth constraint equation, which is a counterpart to the classic brightness change constraint equation, is employed. Both constraints are used to jointly solve for motion estimates.

US Patent 7043056 teaches A method of determining an eye gaze direction of an observer is disclosed comprising the steps of: (a) capturing at least one image of the observer and determining a head pose angle of the observer; (b) utilizing the head pose angle to locate an expected eye position of the observer, and (c) analyzing the expected eye position to locate at least one eye of the observer and observing the location of the eye to determine the gaze direction.

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Inquiry

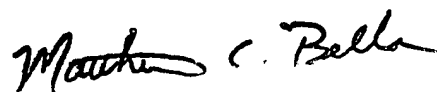
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

February 27, 2007



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600